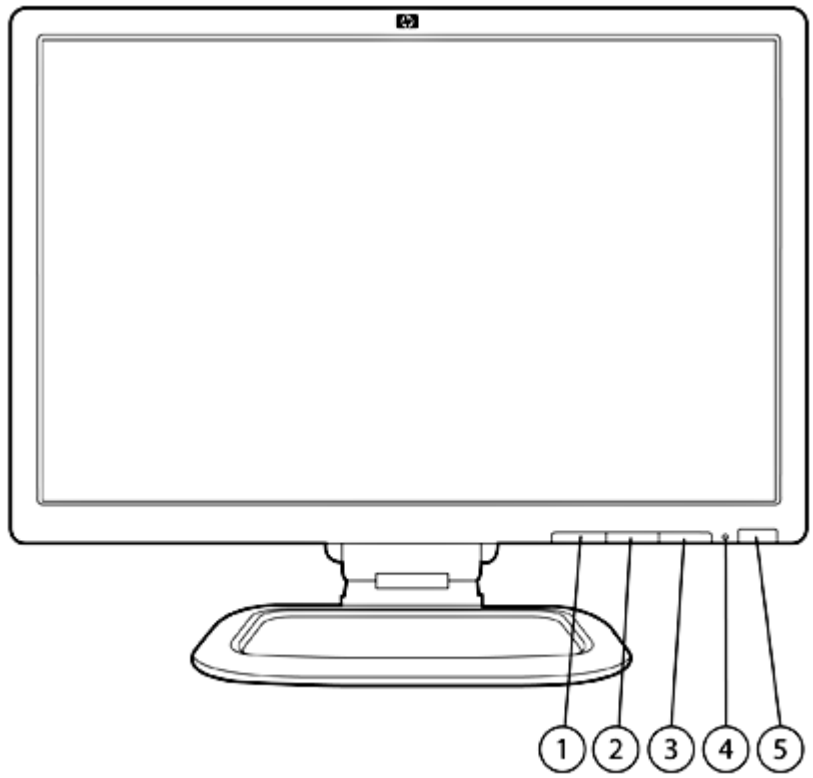
Overview



1. Menu / Select
2. "-"/Auto
3. "+"
4. Power LED
5. Power

Model

KT931AA#ABA

Technical Specifications

Panel	Type	24-inch Wide-Aspect Active Matrix TFT (thin film transistor)
	Viewable Image Area	24 in (61 cm) widescreen; diagonally measured
	Screen Opening (W x H)	20.49 x 12.83 in (52.04 x 32.6 cm)
	Panel Type	TN
	Aspect Ratio	16:10
	Viewing Angle (typical)	Up to 160° horizontal/160° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	400 nits (cd/m^2)
	Contrast Ratio (typical)*	1000:1
	Response Time (typical)*	5 ms (on/off)
	Pixel Pitch	0.270 mm
	Backlight Lamp Life (to half brightness)	40K hours
	Color Gamut	92% of NTSC
	*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
On Screen Display (OSD) Controls	Buttons or Switches	Menu select, Auto adjust/OSD down, Input select/OSD up, Power
	Languages	English, French, German, Spanish, Italian, Netherlands, Japanese, S. Chinese, and Brazilian Portuguese
	User Controls	Brightness, contrast, positioning, color temperature (6500k, 9300k, custom), individual color control, serial number, display, clock, clock phase, monitor management (power saver, sleep), factory reset
Signal Interface/ Performance	Horizontal Frequency	24 to 83 kHz (VGA input); 24 to 83 KHz (DVI input for modes with pixel clock less than 165 MHz)
	Vertical Frequency	50 to 76 Hz (VGA input); 50 to 76 Hz (DVI input for modes with pixel clock less than 165 MHz)
	Native Resolution	1920 x 1200 @ 60 Hz (WUXGA), 16.7 Million pixels
	Preset VESA Graphic Modes (non-interlaced)	1920 x 1200 @ 60 Hz 1680 x 1050 @ 60 Hz 1600 x 1000 @ 60 Hz 1440 x 900 @ 60 Hz 1280 x 1024 @ 60 Hz and 75 Hz 1280 x 960 @ 60 Hz 1024 x 768 @ 60 Hz and 75 Hz 800 x 600 @ 60 Hz and 75 Hz 640 x 480 @ 60 Hz and 75 Hz
	Text Mode	720 x 400 @ 70 Hz
	Mac Mode	1152 x 870 @ 75 Hz and 832 x 624 @ 75 Hz

Technical Specifications

	Maximum Pixel Clock Speed	200 MHz (analog input); 165 MHz (DVI input)	
	User Programmable Modes	Yes, 17	
	Anti-Glare	Yes	
	Anti-Static	Yes	
	Default Color Temperature	6500 K	
Video/Other Inputs	Plug and Play	Yes	
	Self Powered USB 2.0 Hub	One upstream, four downstream ports (cable included)	
	Input Signal	VGA and DVI-D connectors; HDCP support	
	Input Impedance	75 ohms ± 10%	
	Sync Input	TTL separate synch	
	Video Cable	one DVI-D to DVI-D and one 15-pin D-sub (VGA)	
	Video Cable Lengths	VGA 5.9 ft (1.8 m), DVI-D 6.6 ft (2.0 m)	
Power	Input Power	Auto-Sensing, 100 to 240 VAC, 50 +/-3 Hz to 60 +/-3 Hz)	
	Frequency	47.5 to 63 Hz	
	Typical Power Consumption	85 watts (without speaker/with 25% USB)	
	Maximum	120 watts	
	Power Saving	< 2 watts standby; <1 watt off	
	Power Cable Length	6.2 ft (1.9 m)	
Mechanical	Dimensions (H x W x D)	Unpacked w/stand	15.6 to 20.74 x 22.26 x 11.85 in (39.66 to 52.68 x 56.55 x 30.1 cm)
		Unpacked w/o stand (head only)	14.61 x 22.26 x 3.26 in (37.11 x 56.55 x 8.3 cm)
		Packaged	18.3 x 26.18 x 11.22 in (46.5 x 66.5 x 28.5 cm)
	Weight	Head Only	13.9 lb (6.3 kg)
		Unpacked	21.8 lb (9.88 kg)
		Packaged	28.22 lb (12.8 kg)
	Tilt Range	–5° to + 35° vertical	
	Swivel Range	–45° to + 45°	
	Height Adjustable	Yes, range 5.12 in (13.0 cm)	
	Pivot Rotation	Yes, 90° to portrait	
	Base	Attachable, ships attached	
Environmental	Temperature – Operating	41° to 95° F (5° to 40° C)	

	Temperature – Non-operating	-29° to 140° F (-20° to 60° C)
	Humidity – Operating	20% to 80% non-condensing
	Humidity – Non-operating	5% to 95%, 38.7° C max wet-bulb
	Altitude – Operating	+12,000 ft (3,658 m)
	Altitude – Non-operating	+40,000 ft (12,192 m)
Environmental Data	Eco-Label Certifications and Declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • ENERGY STAR® • IT ECO declaration • TCO 03 • EPEAT™ - Silver

Energy Consumption (in accordance with ENERGY STAR® test method)	AC Input Voltage at 100 VAC +/- 5 VAC, 50 Hz +/- 3 Hz	AC Input Voltage at 115 VAC +/- 5 VAC, 60 Hz +/- 3 Hz	AC Input Voltage at 230 VAC +/- 5 VAC, 50 Hz +/- 3 Hz
Normal Operation	46.33 watts	46.53 watts	47.10 watts
Sleep	1.02 watts	1.05 watts	1.22 watts
Off	0.64 watts	0.65 watts	0.82 watts

Heat Dissipation*	AC Input Voltage at 100 VAC +/- 5 VAC, 50 Hz +/- 3 Hz	AC Input Voltage at 115 VAC +/- 5 VAC, 60 Hz +/- 3 Hz	AC Input Voltage at 230 VAC +/- 5 VAC, 50 Hz +/- 3 Hz
Normal Operation	158.19 BTU/hr	158.87 BTU/hr	160.82 BTU/hr
Sleep	3.48 BTU/hr	3.59 BTU/hr	4.17 BTU/hr
Off	2.19 BTU/hr	2.22 BTU/hr	2.80 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Longevity and Upgrading	Upgradeability features contained in the product include: One upstream and four downstream USB ports
Ergonomics	The monitor meets the ergonomic requirement of EN-ISO 13406-2 for flat panel displays.
Additional Information	This product is in compliance with the Restrictions of Hazardous Substances (RoHS) Directive, 2002/95/EC. This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive, 2002/96/EC. This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). This product is in compliance with the IEEE 1680 (EPEAT) standard at the

Silver level, see www.epeat.net.

Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.

Display meets the requirement for low frequency electromagnetic fields per TCO and prEN50279 A/B/C.

This product contains 0% recycled materials (by wt.)

This product is 95% recyclable when properly disposed of at end of life.

Packaging Materials

- Corrugated Carton 0.765 kg
- HDPE Bag 0.03 kg
- Polystyrene 0.216 kg

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

	Packaging	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: www.hp.com/recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
	Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications www.hp.com/hpinfo/globalcitizenship/environmentproductdesign/ecolabels.html ISO 14001 certificates: www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html
Options	HP Silver LCD Speaker Bar—Part number: EE418AA	Powered directly by the monitor or the PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP LCD monitors. Features include dual speakers with full sound range and external jack for headphones. Sold separately. For more information, refer to the HP Silver LCD Speaker Bar QuickSpecs.
	HP LCD Monitor Quick Release—Part number EM870AA*	An easy-to-use, VESA-compliant, LCD monitor mounting solution that allows you to quickly and securely attach a flat panel monitor to a variety of stands, brackets, arms or wall mounts. For more information, refer to this product's QuickSpecs document.
	HP Security Lock—Part number PC766A	Combines aircraft-grade steel and Kevlar fiber to securely lock down your monitor and help prevent theft.

* The HP Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) depending upon the mounting configuration used. Please note this is a total weight limit for all devices mounted, i.e. the combined weight of the monitor and a second device such an HP Compaq Thin Client cannot exceed 24 pounds. Because mounting surfaces vary widely and the final mounting method and

	configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.	
Other	Accessories Included	Documentation kit, DVI-D to DVI-D video cable, 15-pin D-sub (VGA) video cable, USB cable, and power cable
	Software	HP Display Assistant is a software utility that enables theft deterrence and allows monitor adjustment, color calibration, and security/asset management using the Display Data Channel Command Interface (DDC/CI) protocol of the connected PC. HP Display LiteSaver allows you to schedule Sleep mode at preset times to heL protect the monitor against image retention, drastically lower power consumption and energy costs, and extend the lifespan of the monitor. Pivot Pro software from Portrait Displays, Inc. interacts with your PC's native graphics driver to enable seamless portrait screen redraws with a simple mouse-click or keyboard command. Pivot Pro supports 90-degree portrait and landscape views. Language support is available in English, Japanese, French, German, Spanish, Italian, and Traditional and Simplified Chinese.
	User Guide Languages	English, B. Portuguese, French, LA Spanish, Korean, S. Chinese, T. Chinese, Bahasa, Japanese, Danish, Finnish, German, Norwegian, Spanish, Swedish, Greek, Polish, Russian, Slovenian, Turkish
	Warranty Languages	English, Canadian French, LA Spanish, Brazilian Portuguese, Danish, German, Castilian Spanish, French, Italian, Dutch, Norwegian, Finnish, Swedish, Bahasa Indonesian, Korean, T. Chinese, S. Chinese
	Color	Carbonite
	VESA External Mounting	Yes, standard 4 hole pattern, 100 mm
	Security Lock-Ready	Yes, one security lock slot available
Certifications and Compliance	TCO 03, ISO 13406-2 VDT Guidelines Approval, CISPR Requirements, VCCI Approvals, MIC (Korean) Requirements, CSA, Australian ACA Approval, "GS" Mark, TUV Approvals, CE Marking, FCC Approval, ENERGY STAR® qualified, PC-2201 Certified Microsoft® Windows® Certification (Microsoft® Windows® 98, Microsoft Windows 2200, Microsoft Windows XP, and Windows Vista®), EPEAT™ Silver	
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.	
Service and Warranty	Three years parts, labor, and on-site service. 24-hour, 90-day, toll-free technical support. Replacement options may include second business day on-site service, or next business day direct replacement, at HP's sole discretion.* With direct replacement, HP will ship a replacement display product directly to you. Using the prepaid shipping labels provided, return your failed display to HP in the same packaging as the replacement. Certain restrictions and exclusions apply. For details see your product warranty or contact HP Customer Support.	

* HP Care Pack Services extend service contracts beyond the standard warranties. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at: www.hp.com/hps/carepack. Service levels and response times for HP Care Packs may vary depending on your geographic location.

© Copyright 2008 Hewlett-Packard Development Company, L.P.

Microsoft and Windows are trademarks or registered trademarks of Microsoft Corporation in the U.S. and other countries. Windows Vista is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries. ENERGY STAR is a registered mark owned by the U.S. government. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.